

REMARKS

Applicant cancelled claims 12, 24, 27, 37, 60, and 88; amended claims 1, 2, 4, 6, 13, 18, 20, 26, 28, 29, 35, 39, 43, 58, 67, 73, 77, 87, 89, and 93; and added new claims 95-116 to further define Applicant's invention.

In the Office Action, the Examiner allowed claims 51-57 and 61-72; indicated claims 12-14 as being allowable if rewritten to overcome the rejection under 35 U.S.C. § 112, second paragraph; and objected to claims 27-29, 37, 39-41, 43, 44, 60, and 89-92 as being dependent upon a rejected base claim, but being allowable if rewritten into independent form including all the limitations of the base claim and any intervening claims. Applicant rewrote claims 39, 43, and 89 into independent form. Accordingly, Applicant submits that independent claims 39, 43, and 89 are allowable and that claims 40, 41, 44, 90-92, and 99-116 are also allowable at least due to their dependency from one of independent claims 39, 43, and 89, or claims dependent therefrom.

The Examiner rejected claims 12-14 under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner rejected claim 12 as lacking antecedent basis for the phrase "the cannula." Applicant cancelled claim 12 and incorporated the subject matter of claim 12 in independent claim 6, which now recites "a cannula."

The Examiner rejected claims 1, 5-7, 10, 15, 17, 87, 88, and 94 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,281,230 to Heidmueller; rejected claims 1, 5, 6, 10, 26, 30, 33, 34, 77, and 84-86 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,843,017 to Yoon; rejected claims 1, 5, 18-20, and 58 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,643,282 to Kieturakis; rejected claims 1, 5, 18, 19, 21, 23, and 24 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,383,195 to Richard; rejected claims 35, 36, 38, 42, 45-48, 50, and 58 under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2002/0068943 to Chu et al.; and rejected claims 6, 7, 10, 17, 77, 78, 82-84, 86-88 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,099,550 to Yoon.

For independent claims 6, 26, 35, and 58, Applicant incorporated the subject matter of dependent claims 12, 27, 37, and 60, respectively, which the Examiner indicated as being allowable. Accordingly, Applicant submits that independent claims 6, 26, 35, and 58 are allowable and that dependent claims 7-11, 13-17, 28-34, 36, 38, 40-42, 45-50, and 59 are also allowable at least due to their dependency from one of independent claims 6, 26, 35, and 58, or claims dependent therefrom.

For independent claim 1, Applicant amended the claim to recite a surgical extractor having a body, a dilator, a cover extending from a portion of the dilator, and "a draw cable adapted to move a portion of said cover away from said dilator and toward the mid-longitudinal axis of said extractor." Heidmueller teaches an extractor having a guide tube 1, a sleeve 10 therein, and two bowls 2, 3 at one end of sleeve 10. (Heidmueller, col. 3, line 34; Fig. 1a). Heidmueller does not teach or suggest a surgical extractor having a cover and a draw cable. Yoon '017 teaches a multifunctional tissue dissecting instrument 10 having a probe 18. (Yoon '017, col. 5, lines 34-37; Fig. 2). Yoon '017 does not teach or suggest a surgical extractor having a cover and a draw cable. Kieturakis teaches a sleeve 10 having a distal end with a bell shape 27. (Kieturakis, col. 3, lines 50-51; Fig. 2). Kieturakis does not teach or suggest a surgical extractor having a cover and a draw cable. Richard teaches a laproscopic specimen extractor 10 having draw strings 28, 38 to cinch cage 20 closed. (Richard, col. 6, lines 26, 27; Figs. 3, 4). Richard does not teach or suggest a surgical extractor having a cover and a draw cable adapted to move a portion of the cover away from the dilator as recited in independent claim 1. Accordingly, Applicant submits that independent claim 1 is allowable and that claims 2-5 and 95-98 are also allowable at least due to their dependency from independent claim 1, or claims dependent therefrom.

For independent claim 18, Applicant amended the claim to recite a method for removing tissue including the step of "removing the cannula and the dilator together with the dilator remaining substantially in the expanded position." Kieturakis teaches alternative surgical methods for removing tissue where a cannula 50 is removed prior to the removal of sleeve 10 (Kieturakis, col. 4, lines 38-44; Figs. 8C, 11C), or where

cannula 50 is left in place while tissue is drawn therethrough (Kieturakis, col. 8, lines 2-3; Fig. 16B). Kieturakis does not teach or suggest removing the cannula and the dilator together as recited in independent claim 18.

Richard teaches removing tissue with a cage 20 being drawn together by six strips 21-26 to form a "football" shaped package in which the cross sectional diameter is "much smaller than its length." (Richard, col. 8, lines 51-52; Fig. 3). Richard does not teach or suggest removing the dilator with the dilator remaining substantially in the expanded position as recited in independent claim 18. Accordingly, Applicant submits that independent claim 18 is allowable and that claims 19-23 and 25 are also allowable at least due to their dependency from independent claim 18, or claims dependent therefrom.

For independent claim 77, Applicant amended the claim to recite a grasper having at least two grasping surfaces, "said grasping surfaces including surface roughenings configured to generally point towards said trailing end of said shaft when said grasping surfaces are distanced apart from one another." Yoon '017 teaches a multifunctional tissue dissecting instrument 10 having a probe 18. (Yoon '017, col. 5, lines 34-37; Fig. 2). Yoon '017 does not teach or suggest a grasper having at least two grasping surfaces as recited in independent claim 77.

Yoon '550 teaches an endoscopic instrument having jaws 38, 40 with a tread 66 having a "diamond-shaped" pattern of protrusions. (Yoon '550, col. 4, lines 51-59; Figs. 4-7). Yoon '550 does not teach or suggest a grasper having at least two grasping surfaces as recited in independent claim 77. Accordingly, Applicant submits that independent claim 77 is allowable and that claims 78-86 are also allowable at least due to their dependency from independent claim 77, or claims dependent therefrom.

For independent claim 87, Applicant amended the claim to recite a method for removing tissue including the step of "inserting a cannula into the body cavity, the cannula having a longitudinal axis, a length along the longitudinal axis, and a maximum outside cross sectional dimension of 5 mm transverse to the longitudinal axis and along a majority of the length of the cannula." Heidmueller teaches the use of an extractor

having a guide tube 1, a sleeve 10 therein, and two bowls 2, 3 at one end of sleeve 10. (Heidmueller, col. 3, line 34; Fig. 1a). Sleeve 10 includes an opening 19 that is large enough to accommodate instruments such as a cannula. (Heidmueller, col. 4, lines 7-13). Heidmueller does not teach or suggest inserting a cannula with a maximum outside cross sectional dimension of 5 mm along a majority of the length of the cannula as recited in independent claim 87.

Yoon '550 teaches guiding an endoscopic instrument through a portal sleeve 156. (Yoon '550, col. 5, line 67 to col. 6, line 1; Fig. 11). Yoon '550 does not teach or suggest inserting a cannula with a maximum outside cross sectional dimension of 5 mm along a majority of the length of the cannula as recited in independent claim 87. Accordingly, Applicant submits that independent claim 87 is allowable and that claims 93 and 94 are also allowable at least due to their dependency from independent claim 87, or claims dependent therefrom.

The Examiner also rejected claims 2-4 under 35 U.S.C. § 103(a) as being unpatentable over Kieturakis in view of U.S. Patent No. 5,643,227 to Stevens; claims 8, 9, and 11 under 35 U.S.C. § 103(a) as being unpatentable over Yoon '017 in view of U.S. Patent No. 5,527,274 to Zakko; claims 16, 31, 32, and 79-81 under 35 U.S.C. § 103(a) as being unpatentable over Yoon ('017); claim 25 under 35 U.S.C. § 103(a) as being unpatentable over Richard; claim 49 under 35 U.S.C. § 103(a) as being unpatentable over Chu et al.; claim 59 under 35 U.S.C. § 103(a) as being unpatentable over Kieturakis; and claim 22 under 35 U.S.C. § 103(a) as being unpatentable over Richard in view of Heidmueller. Applicant submits that the rejections over claims 2-4, 8, 9, 11, 16, 22, 25, 31, 32, 49, 59, and 79-81 are rendered moot at least because they depend from an allowable independent claim, or claims dependent therefrom.

The Examiner also rejected claims 73-76 under 35 U.S.C. § 103(a) as being unpatentable over Kieturakis in view of Zakko. Independent claim 73, as now amended, recites a method for removing tissue that includes the steps of inserting a dilator having "a cover attached thereto, the cover having a draw cable adapted to substantially close the cover" and "drawing the draw cable." Kieturakis teaches the use

of a sleeve 10 having a distal end with a bell shape 27. (Kieturakis, col. 3, lines 50-51; Fig. 2). Zakko teaches the use of an apparatus for delivering pressurized fluid. (Zakko, col. 3, lines 16-25). Neither Kieturakis nor Zakko, whether alone or in proper combination, teach or suggest inserting a dilator having a cover with a draw cable as recited in independent claim 73. Inserting a dilator having a cover with a draw cable is beneficial for substantially eliminating the migration of harmful chemical solvents away from the tissue being treated. Accordingly, Applicant submits that independent claim 73 is allowable and that claims 74-76 are also allowable at least due to their dependency from independent claim 73, or claims dependent therefrom.

The Examiner rejected claim 93 under 35 U.S.C. § 103(a) as being unpatentable over Heidmueller, and in particular, as being an obvious design choice. Applicant respectfully traverses the rejection. Conventional methods often employ cannulas having a 10 mm diameter. (See, Specification, page 5, lines 17-23). Applicant's method as recited in claim 93 is conducted utilizing a cannula having a maximum outer dimension of 5 mm. This provides advantages over methods utilizing conventional 10 mm cannulas, for example, reduction in bleeding and post surgery incisional herniation at wound sites, and reduction in the size of the wound by as much as 50%. (See, Specification, page 5, line 21 to page 6, line 3). Accordingly, Applicant submits that claim 93 is allowable.

The Examiner objected to the drawings under 37 C.F.R. § 1.84(p)(5) because the reference number 304 was not included in the drawings. Applicant amended Fig. 8 to include reference number 304. Accordingly, Applicant submits that the objection to the drawings is overcome.

In view of the foregoing remarks, it is respectfully submitted that the claims, as amended, are patentable. Therefore, it is requested that the Examiner reconsider the outstanding rejections in view of the preceding comments. Issuance of a timely Notice of Allowance of the claims is earnestly solicited.

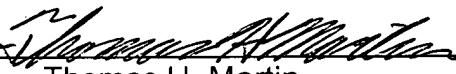
To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this reply, such extension is hereby respectfully requested. If there are any

fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 50-1068.

Respectfully submitted,

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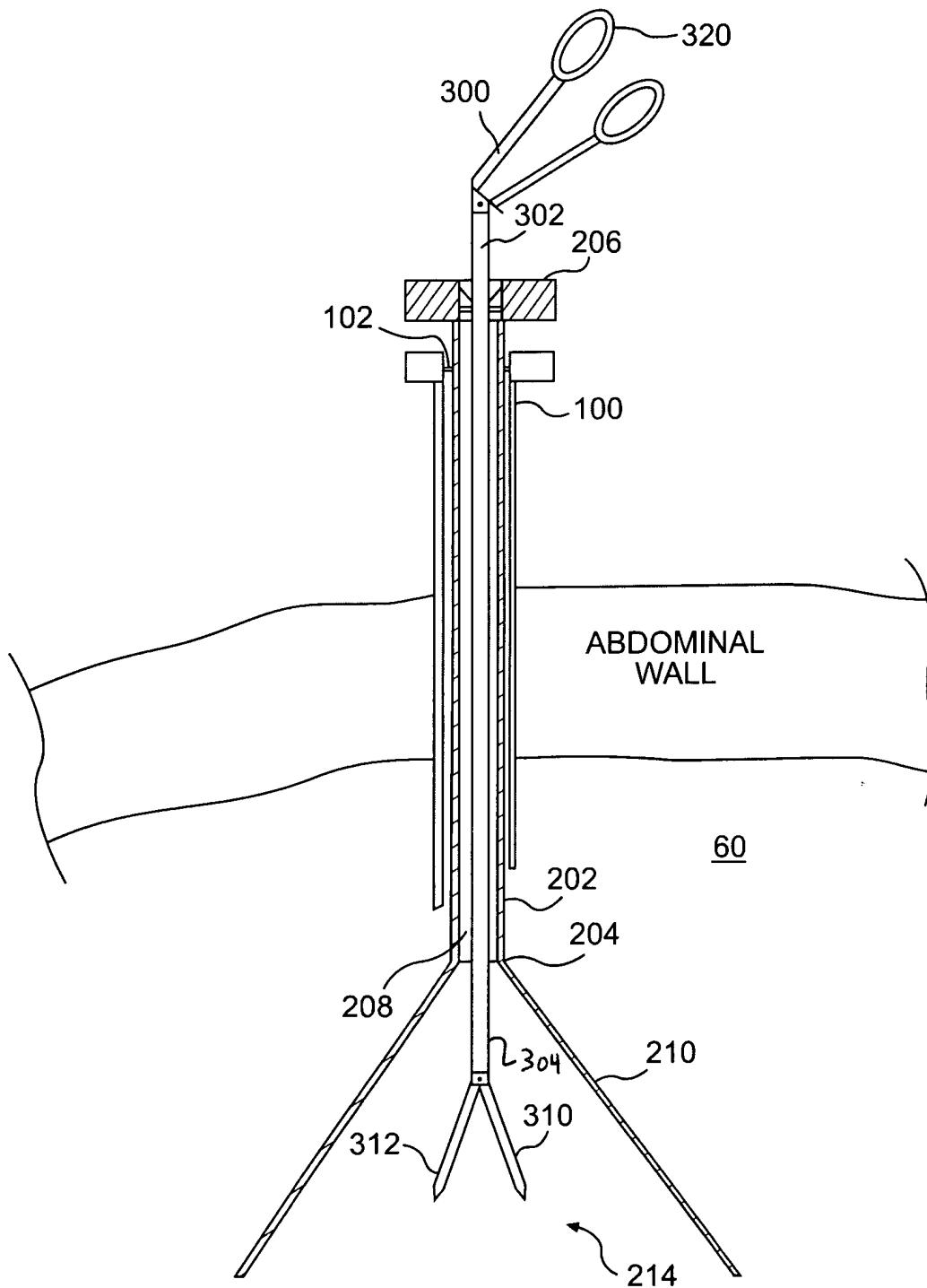


FIG. 8